



SEQUENCE LISTING

<110> CLINTON, MICHAEL

<120> AVIAN SEX DETERMINATION METHOD

<130> 102286.157 US1

<140> 10/524,475

<141> 2005-02-11

<150> PCT/GB03/003536

<151> 2003-08-13

<150> GB 0218955.3

<151> 2002-08-14

<160> 30

<170> PatentIn version 3.3

<210> 1

<211> 318

<212> DNA

<213> Gallus gallus

<400> 1

agtgccgtta	ctatgagcaa	cccaaggaga	accagacagt	atatatatat	gtgtatgact	60
ctgcaaaacc	tttgtagcgc	gcattttccc	ttgctgtgtt	ttccttccgc	ctgtgatcga	120
ccgagaaaaga	gaacctgccc	ctctaccctt	gcttccaacc	agaatcatga	aacactgtca	180
cactgcggtg	gtaaccatct	ctgcattcct	gtaacaaatc	cttgcttttc	tttctgtctt	240
tttactattg	ctttcgtcat	cccacctccc	atcccccggc	ctagctaacc	aaaactttct	300
acaataaacc	ggttgggc					318

<210> 2

<211> 796

<212> DNA

<213> Gallus gallus

<400> 2

ggcgctgggg	gctttttggt	gccgatccct	cccgtcaa	at	ggccgtcaaa	tgttgacggg	60
gcaggccagg	agtttgccat	ctttgcatga	agggacaggc	aactcgggga	gagtgaagg		120
atgttgctag	catgcgcagg	gagaaaattc	gacaggccaa	agcccagcac	gaccttaata		180
tggccgccat	tgtttgagat	gattaaaact	atgtttttac	gaacatatta	ataagagcaa		240
gaggaggggc	aaggagaatc	tcccttcttt	attcaacgcg	gtggggaaca	tcaccatcga		300
ggaggaggga	aaggctgaag	ttcccaacgc	cttcttca	cttggcttta	gcagtgaac		360
ctgctatccc	cagggtactc	agccccctga	gctggaagac	ggggccgggg	agcagaataa		420
acgcccctcg	attcccagtg	ccttctttac	ttctgtctgt	ttctgactgt	tgcacctgtg		480
ctggacgtgc	cgttactatg	agtaacccaa	ggagaaccgg	acagtatata	tatgtatgga		540
ccctgcaaaa	actttgcgcg	cgcttttccc	ttgttgtgtt	ttccttccgc	ctgtgatcga		600
ccgagaaaga	gaacccgccc	cccccccgct	tccaaccgga	atcatgaaac	attgtcacac		660
tgcggtggtg	accatctctg	cattcctgta	acaaatcctt	gcttttcttt	tctgtctttt		720
cactattgct	ttcgtcatcc	cacctcccat	ccccaggcct	agctaacc	aaacgttttac		780
aataaaccgg	ttgggc						796

<210> 3
 <211> 772
 <212> DNA
 <213> Gallus gallus

<400> 3
 cggtcaaatg gccgtcaaat gttggcgggg caggccagga gtttgccatc tttggatgaa 60
 ggacgggcaa ctcggggaga gtgccaggat gttgctagca tgcgcaggga gaaaattcga 120
 caagccaaaag cccagcaaga ccttaatctg gccgccattg ttcgagatga ttaaaacaat 180
 gtttttacga acgtattagt agcaagagga gggccaagga gaatctccct tctttattcg 240
 acgcggtggg gaacatcacc accgaggagg aggaaaaggc tgaagtcttc aacgccttct 300
 tcaacttctgt ctttagcagt gagaccagct attctcaggg tactcagccc cctgagctgg 360
 aagacggggc cggggagcag aataaacgcc cctcaattcc cagtgccttc tttacttctg 420
 tctgttctga ctgttgacc ggtgctggac gtgccgttac tatgagcaac ccaaggagaa 480
 ccagacagta tagatatata tatatgtatg gactctgcaa aaacttttgt gcgcgctttt 540
 cccttgctgt gttttccttc cgcctgtgat cgaccgagaa agagaacctg cccccccacc 600
 cctgcttcca accagaatcg tgaaacattg tcacactgcy gtggttaacca tctctgcatt 660
 cctgtaacaa atccttgctt ttcttttctg tcttttccact attgctttcg tcactccgcc 720
 tcccatcccc aggcctagct aacaaaaact ttctacaata aaccggttgg gc 772

<210> 4
 <211> 796
 <212> DNA
 <213> Gallus gallus

<400> 4
 ggcgctgggg gcttttttgg gccgatccct cccgtcaaat ggccgtcaaa tgttgacggg 60
 gcaggccagg agtttgccat ctttgcata agggacaggc aactcgggga gagtgaagg 120
 atgttgctag catgcgcagg gagaaaattc gacaggccaa agcccagcac gacctaata 180
 tggccgccat tgtttgagat gattaaaact atgtttttac gaacatatta ataagagcaa 240
 gaggaggggc aaggagaatc tcccttcttt attcaacgcy gtggggaaca tcaccatcga 300
 ggaggaggga aaggctgaag ttcccaacgc cttcttccact tctggcttta gcagtgaac 360
 ctgctatccc cagggtactc agccccctga gctggaagac ggggcccggg agcagaataa 420
 acgccccctc attcccagtg ctttctttac ttctgtctgt ttctgactgt tgcacctgtg 480
 ctggacgtgc cgttactatg agtaacccea ggagaaccgg acagtatata tatgtatgga 540
 ctctgcaaaa actttgcgcy cgcttttccc ttgttggtgt ttccctccgc ctgtgatcga 600
 ccgagaaaga gaacctgccc cccccccgct tccaaccgga atcatgaaac attgtcacac 660
 tgcggtggta accatctctg cattcctgta acaaatcctt gcttttcttt tctgtctttt 720
 cactattgct ttcgtcatcc cacctcccat cccagggcct agctaacc aaacgttttac 780
 aataaaccgg ttgggc 796

<210> 5
 <211> 1283
 <212> DNA
 <213> Gallus gallus

<400> 5
 cgcaacgggc gctcgtttcca gagggcctgc gagcgcgcta ggggtggggga ggggtgggac 60
 gggaggggcaa gggaagaatc gcgcgacgcy cagcaaagcc gcggctacct cctcgtccac 120
 aacggctcct cctcgcggat aacgttggcy gagaactcct ggcgggagac ttttcccaag 180
 agagcggcgc caccgcgcca ggcgccggcy gacctaacga tcccgcgggc catgacggcy 240
 cccgctcgct acaacactcc ctgagcccca aacctcccca gcacggctca gcatggctca 300
 gcacggctcg gctcgccctc gctcgccctc gcccggtccc gccctcggcy gcgctcattg 360
 ggccgacaga gcgcgcggcy cgtttccgcy cctcggttgg ctgtctcgcc tgccctttaa 420
 gcttggtccc gccctgtagg cggctccgct cccgctggcc cgggtgcttat cggggctcag 480
 ggacttaggc gctgggggct ttttgggtgc gatccctccc gtcaaattggc cgtcaaattg 540

tgacggggca	ggccaggagt	ttgccatctt	tgcataaagg	gacaggcaac	tcggggagag	600
tgcaaggatg	ttgctagcat	gcgcaggag	aaaattcgac	aggccaaagc	ccagcacgac	660
cttaatatgg	ccgccattgt	ttgagatgat	taaaactatg	tttttacgaa	catattaata	720
agagcaagag	gagggccaag	gagaatctcc	cttctttatt	caacgcggtg	gggaacatca	780
ccatcgagga	ggagggaag	gctgaagtcc	ccaacgcctt	cttcacttct	ggcttttagca	840
gtgagacctg	ctatccccag	ggtactcagc	cccctgagct	ggaagacggg	gccggggagc	900
agaataaacg	cccctcgatt	cccagtgcct	tctttacttc	tgtctgtttc	tgactgtttc	960
acctgtgctg	gacgtgccgt	tactatgagt	aacccaagga	gaaccggaca	gtatatatat	1020
gtatggactc	tgcaaaaact	ttgcgcgcgc	ttttcccttg	ttgtgttttc	cttccgcctg	1080
tgatcgaccg	agaaagagaa	cctgcccccc	ccccgcttcc	aaccggaatc	atgaaacatt	1140
gtcacactgc	ggtggttaac	atctctgcat	tcctgtaaca	aatccttgct	tttcttttct	1200
gtcttttcac	tattgctttc	gtcatccac	ctcccatccc	caggcctagc	taacccaaac	1260
gtttttacaat	aaaccggttg	ggc				1283

<210> 6
 <211> 285
 <212> DNA
 <213> Meleagris gallopavo

<400> 6	
tgccgttact	atgagcaacc caaggagagc cagacagtgt atatatgtat ggactctgca 60
aaaactttgt	gcgcgctatt cccttggtgt gttttccttc cgctgtgat cgaccgagaa 120
agagaacctg	cacccccag ccccgctgcc aaccagactc atgaaacatt gtgacactgc 180
ggtggttaaca	atctctgcct tcctgtaaca aatcctcgct tttcttttct gtctttttac 240
tattgctttc	ttcgtccac ctcccatccc caggcctagc taacc 285

<210> 7
 <211> 294
 <212> DNA
 <213> Coturnix coturnix

<400> 7	
actagtgatt	gccgttacta tgagcaaccc aaacagtgga cagtgtatat ataagggctg 60
caaaaataag	agcatatgat ttcccttgta ttttccttct gcctgtgat ggccaagaaa 120
gagggagaga	attgacagcc tgcactgcct ctgctgacca gactcatgga acactgtcat 180
actgcagtga	taactatctc tgcattccta taacaaaccc ttgcttttat tttcttttct 240
tttactatca	ttttcttcat cccacctcct gtccccaggc ctactaacc aatc 294

<210> 8
 <211> 91
 <212> PRT
 <213> Gallus gallus

<400> 8	
Met Ser Asn Pro Arg Arg Thr Arg Gln Tyr Ile Tyr Met Cys Met Thr	
1	5 10 15
Leu Gln Asn Leu Cys Ser Ala His Phe Pro Leu Leu Cys Phe Pro Ser	
20	25 30
Ala Cys Asp Arg Pro Arg Lys Arg Thr Cys Pro Ser Thr Pro Ala Ser	
35	40 45
Asn Gln Asn His Glu Thr Leu Ser His Cys Gly Gly Asn His Leu Cys	
50	55 60

Ile Pro Val Thr Asn Pro Cys Phe Ser Phe Cys Leu Phe Thr Ile Ala
65 70 75 80

Phe Val Ile Pro Pro Pro Ile Pro Arg Pro Ser
85 90

<210> 9
<211> 15
<212> PRT
<213> Gallus gallus

<400> 9
Met Lys His Cys His Thr Ala Val Val Thr Ile Ser Ala Phe Leu
1 5 10 15

<210> 10
<211> 36
<212> PRT
<213> Gallus gallus

<400> 10
Met Leu Leu Ala Cys Ala Gly Arg Lys Phe Asp Arg Pro Lys Pro Ser
1 5 10 15

Thr Thr Leu Ile Trp Pro Pro Leu Phe Glu Met Ile Lys Thr Met Phe
20 25 30

Leu Arg Thr Tyr
35

<210> 11
<211> 76
<212> PRT
<213> Gallus gallus

<400> 11
Met Tyr Gly Pro Cys Lys Asn Phe Ala Arg Ala Phe Pro Leu Leu Cys
1 5 10 15

Phe Pro Ser Ala Cys Asp Arg Pro Arg Lys Arg Thr Arg Pro Pro Pro
20 25 30

Ala Ser Asn Arg Asn His Glu Thr Leu Ser His Cys Gly Gly Asn His
35 40 45

Leu Cys Ile Pro Val Thr Asn Pro Cys Phe Ser Phe Leu Ser Phe His
50 55 60

Tyr Cys Phe Arg His Pro Thr Ser His Pro Gln Ala
65 70 75

<210> 12
 <211> 26
 <212> PRT
 <213> Gallus gallus

<400> 12
 Met Leu Thr Gly Gln Ala Arg Ser Leu Pro Ser Leu His Glu Gly Thr
 1 5 10 15
 Gly Asn Ser Gly Arg Val Gln Gly Cys Cys
 20 25

<210> 13
 <211> 51
 <212> PRT
 <213> Gallus gallus

<400> 13
 Met Asp Pro Ala Lys Thr Leu Arg Ala Leu Phe Pro Cys Cys Val Phe
 1 5 10 15
 Leu Pro Pro Val Ile Asp Arg Glu Arg Glu Pro Ala Pro Pro Pro Leu
 20 25 30
 Pro Thr Gly Ile Met Lys His Cys His Thr Ala Val Val Thr Ile Ser
 35 40 45
 Ala Phe Leu
 50

<210> 14
 <211> 5
 <212> PRT
 <213> Gallus gallus

<400> 14
 Met Ala Val Lys Cys
 1 5

<210> 15
 <211> 36
 <212> PRT
 <213> Gallus gallus

<400> 15
 Met Lys Gly Gln Ala Thr Arg Gly Glu Cys Lys Asp Val Ala Ser Met
 1 5 10 15
 Arg Arg Glu Lys Ile Arg Gln Ala Lys Ala Gln His Asp Leu Asn Met
 20 25 30
 Ala Ala Ile Val
 35

<210> 16
 <211> 32
 <212> PRT
 <213> Gallus gallus

<400> 16
 Met Ser Asn Pro Arg Arg Thr Gly Gln Tyr Ile Tyr Val Trp Thr Leu
 1 5 10 15
 Gln Lys Leu Cys Ala Arg Phe Ser Leu Val Val Phe Ser Phe Arg Leu
 20 25 30

<210> 17
 <211> 51
 <212> PRT
 <213> Gallus gallus

<400> 17
 Met Leu Ala Gly Gln Ala Arg Ser Leu Pro Ser Leu Asp Glu Gly Arg
 1 5 10 15
 Ala Thr Arg Gly Glu Cys Gln Asp Val Ala Ser Met Arg Arg Glu Lys
 20 25 30
 Ile Arg Gln Ala Lys Ala Gln Gln Asp Leu Asn Leu Ala Ala Ile Val
 35 40 45
 Arg Asp Asp
 50

<210> 18
 <211> 76
 <212> PRT
 <213> Gallus gallus

<400> 18
 Met Asp Ser Ala Lys Thr Phe Val Arg Ala Phe Pro Leu Leu Cys Phe
 1 5 10 15
 Pro Ser Ala Cys Asp Arg Pro Arg Lys Arg Thr Cys Pro Pro Thr Pro
 20 25 30
 Ala Ser Asn Gln Asn Arg Glu Thr Leu Ser His Cys Gly Gly Asn His
 35 40 45
 Leu Cys Ile Pro Val Thr Asn Pro Cys Phe Ser Phe Leu Ser Phe His
 50 55 60
 Tyr Cys Phe Arg His Pro Ala Ser His Pro Gln Ala
 65 70 75

<210> 19
 <211> 63
 <212> PRT
 <213> Gallus gallus

<400> 19

Met Ala Val Lys Cys Trp Arg Gly Arg Pro Gly Val Cys His Leu Trp
 1 5 10 15

Met Lys Asp Gly Gln Leu Gly Glu Ser Ala Arg Met Leu Leu Ala Cys
 20 25 30

Ala Gly Arg Lys Phe Asp Lys Pro Lys Pro Ser Lys Thr Leu Ile Trp
 35 40 45

Pro Pro Leu Phe Glu Met Ile Lys Thr Met Phe Leu Arg Thr Tyr
 50 55 60

<210> 20

<211> 35

<212> PRT

<213> Gallus gallus

<400> 20

Met Ser Asn Pro Arg Arg Thr Arg Gln Tyr Arg Tyr Ile Tyr Met Tyr
 1 5 10 15

Gly Leu Cys Lys Asn Phe Cys Ala Arg Phe Ser Leu Ala Val Phe Ser
 20 25 30

Phe Arg Leu
 35

<210> 21

<211> 76

<212> PRT

<213> Gallus gallus

<400> 21

Met Tyr Gly Leu Cys Lys Asn Phe Ala Arg Ala Phe Pro Leu Leu Cys
 1 5 10 15

Phe Pro Ser Ala Cys Asp Arg Pro Arg Lys Arg Thr Cys Pro Pro Pro
 20 25 30

Ala Ser Asn Arg Asn His Glu Thr Leu Ser His Cys Gly Gly Asn His
 35 40 45

Leu Cys Ile Pro Val Thr Asn Pro Cys Phe Ser Phe Leu Ser Phe His
 50 55 60

Tyr Cys Phe Arg His Pro Thr Ser His Pro Gln Ala
 65 70 75

<210> 22

<211> 51

<212> PRT

<213> Gallus gallus

<400> 22

Met Asp Ser Ala Lys Thr Leu Arg Ala Leu Phe Pro Cys Cys Val Phe
1 5 10 15

Leu Pro Pro Val Ile Asp Arg Glu Arg Glu Pro Ala Pro Pro Pro Leu
20 25 30

Pro Thr Gly Ile Met Lys His Cys His Thr Ala Val Val Thr Ile Ser
35 40 45

Ala Phe Leu
50

<210> 23

<211> 62

<212> PRT

<213> Gallus gallus

<400> 23

Met Thr Ala Pro Ala Arg Tyr Asn Thr Pro Ser Ala Pro Asn Leu Pro
1 5 10 15

Ser Thr Ala Gln His Gly Ser Ala Arg Leu Gly Ser Pro Arg Leu Ala
20 25 30

Ser Ala Arg Ser Arg Pro Arg Arg Arg Ser Leu Gly Arg Gln Ser Ala
35 40 45

Ala Ala Val Ser Ala Pro Arg Leu Ala Val Ser Pro Ala Leu
50 55 60

<210> 24

<211> 48

<212> PRT

<213> Gallus gallus

<400> 24

Met Ala Gln His Gly Ser Ala Arg Leu Gly Ser Pro Arg Pro Gly Pro
1 5 10 15

Ala Leu Gly Gly Ala His Trp Ala Asp Arg Ala Pro Arg Pro Phe Pro
20 25 30

Arg Leu Gly Trp Leu Ser Arg Leu Pro Phe Lys Leu Val Pro Ala Leu
35 40 45

<210> 25

<211> 14

<212> DNA

<213> Artificial sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 25
 tttttttttt ttvc 14

<210> 26
 <211> 10
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of Artificial Sequence: Synthetic primer

<400> 26
 agtgccgtta 10

<210> 27
 <211> 20
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of Artificial Sequence: Synthetic primer

<400> 27
 agaataaacg cccctcgatt 20

<210> 28
 <211> 20
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of Artificial Sequence: Synthetic primer

<400> 28
 caggttctct ttctcggtcg 20

<210> 29
 <211> 20
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of Artificial Sequence: Synthetic primer

<400> 29
 agaataaacg cccctcgatt 20

<210> 30
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 30
caggttctct ttctcggtcg